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THE

NIAGARA SHIP CANAL:

ITS

MILITARY AND COMMERCIAL
NECESSITY.

NEW YORK,

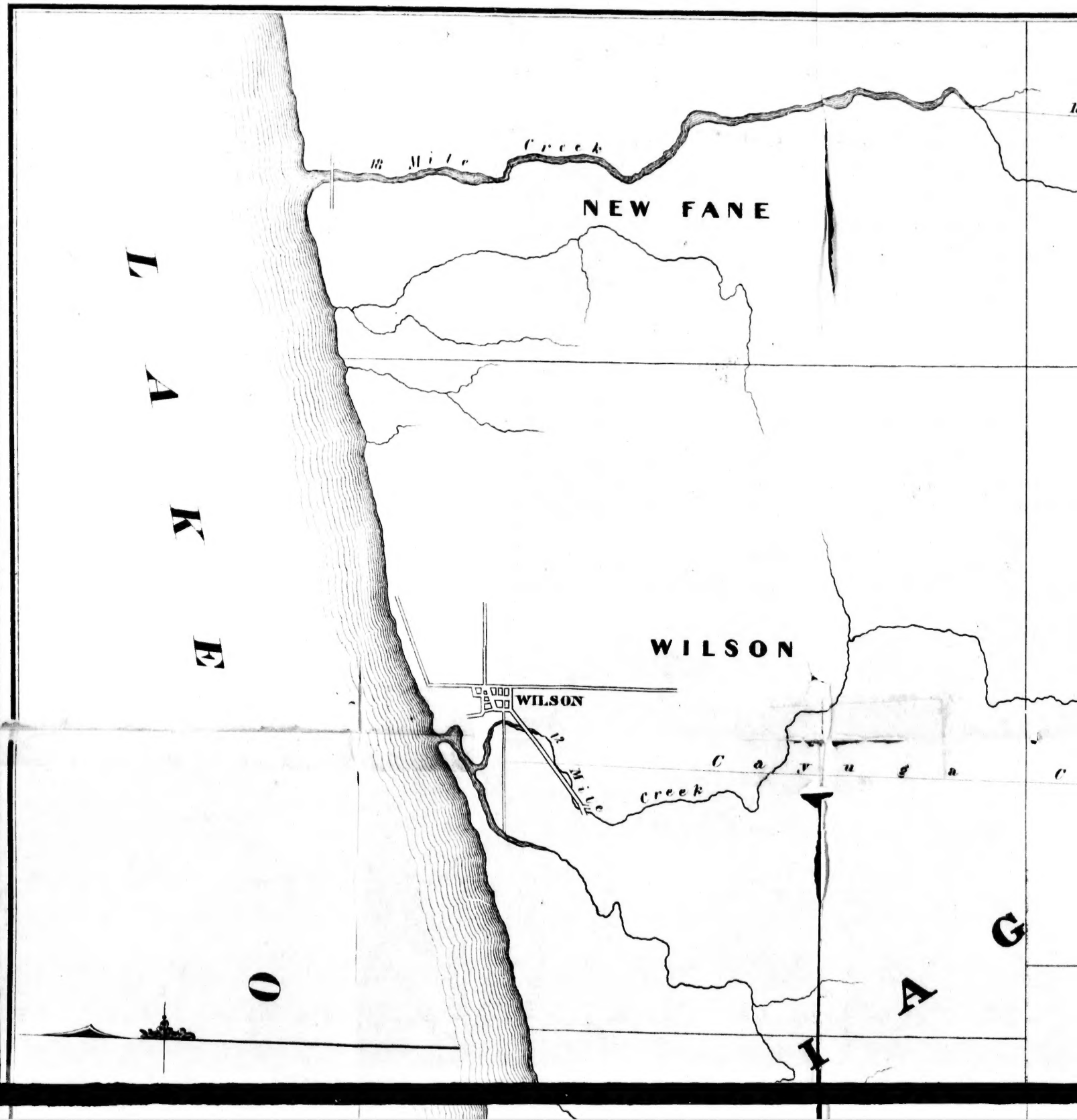
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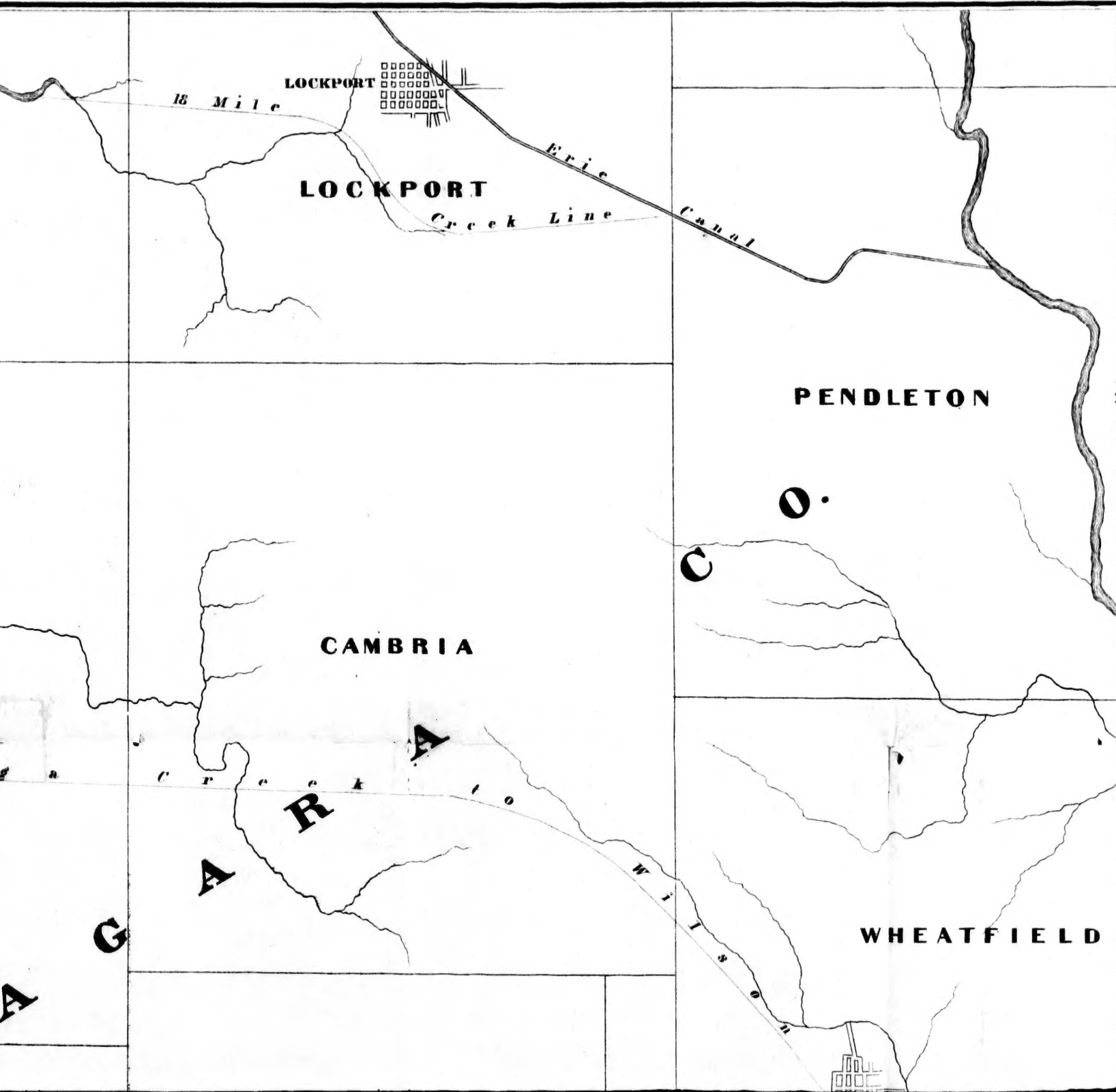


NGS

1888

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MAP
OF SURVEYS IN NIAGARA CO
STATE OF NEW YORK
FOR THE
NIAGARA SHIP CANAL

Scale 1 Mile to an Inch

PENDLETON

AMHERST

TONAWANDA

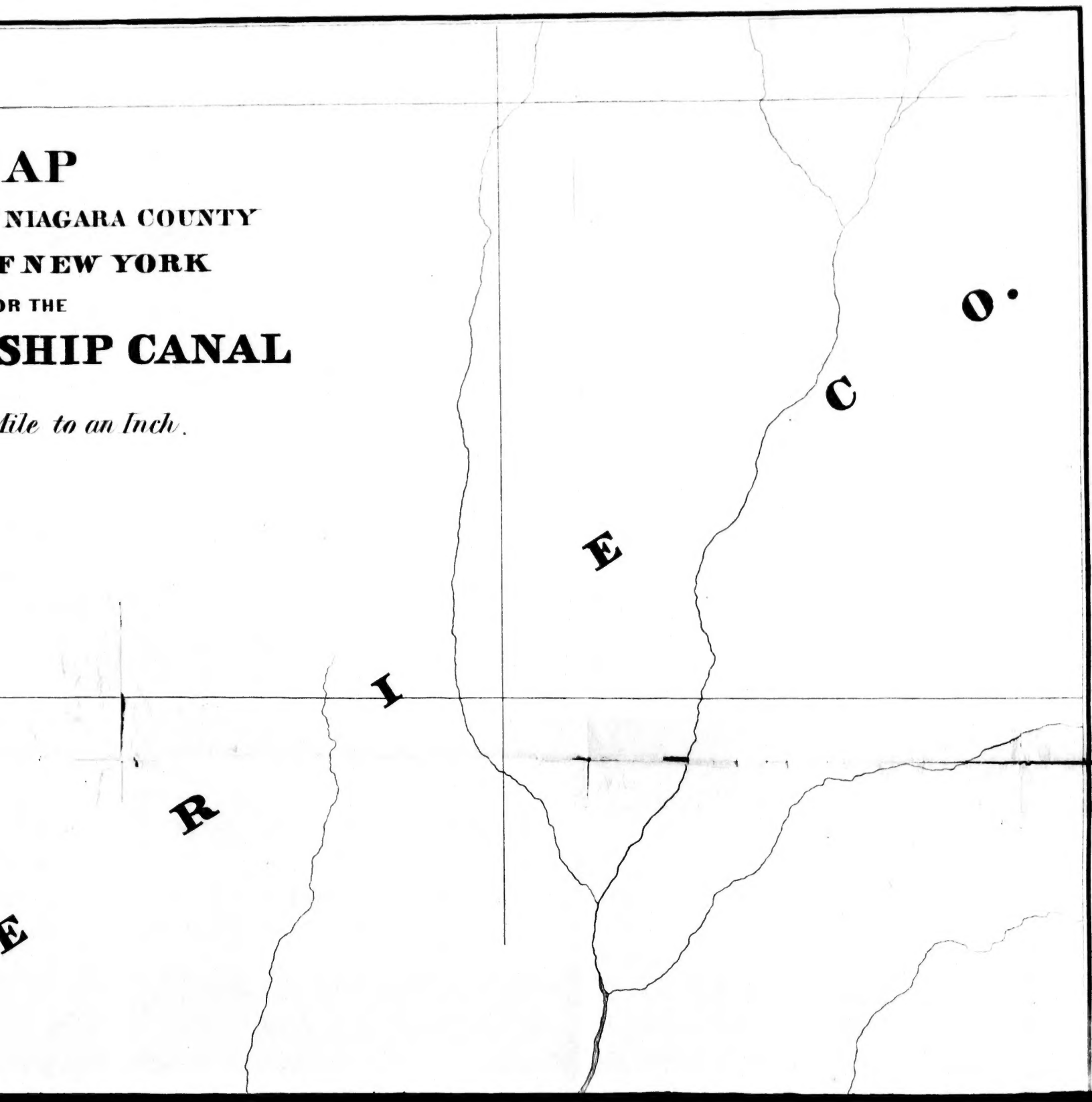
WHEATFIELD

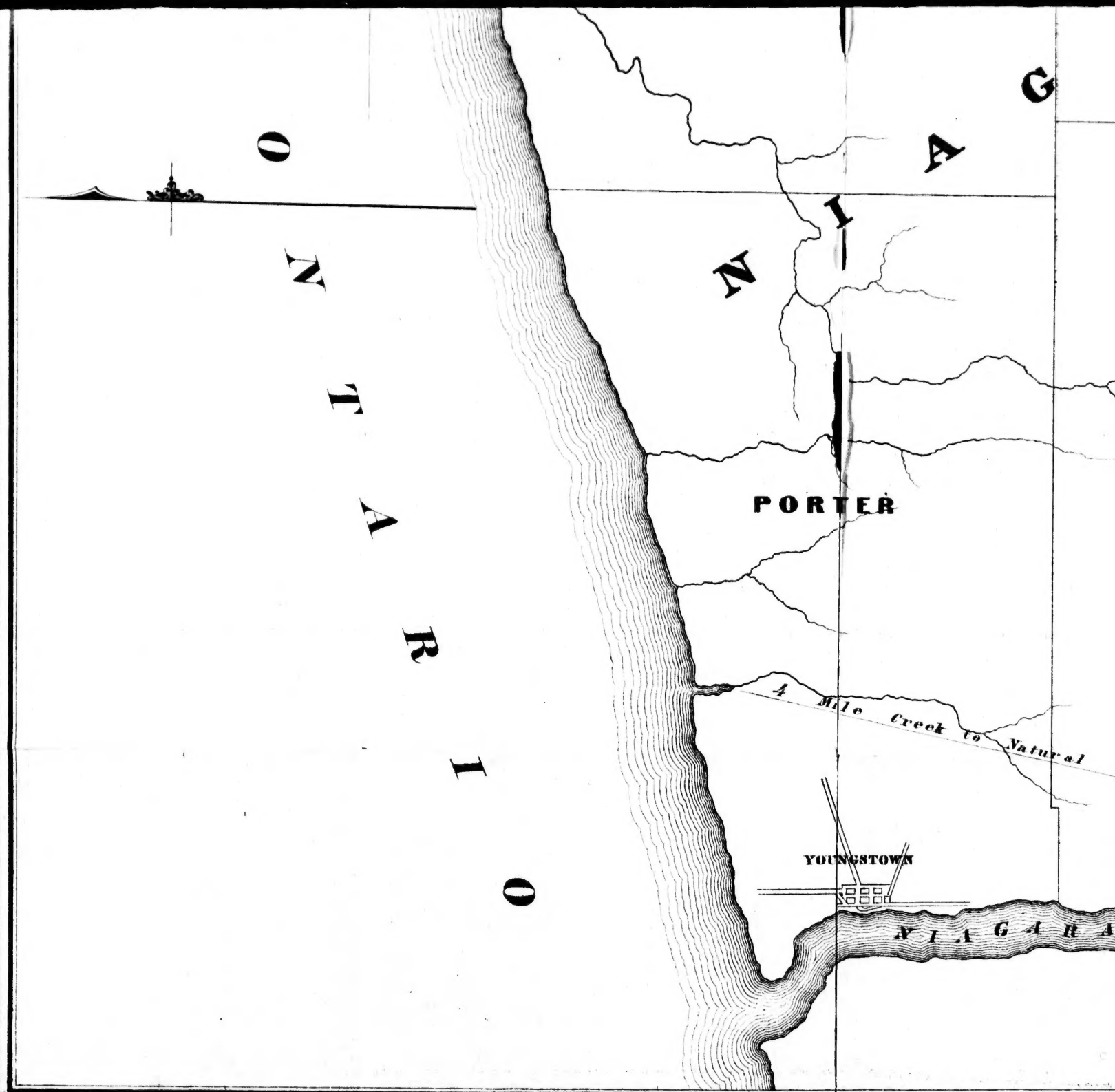
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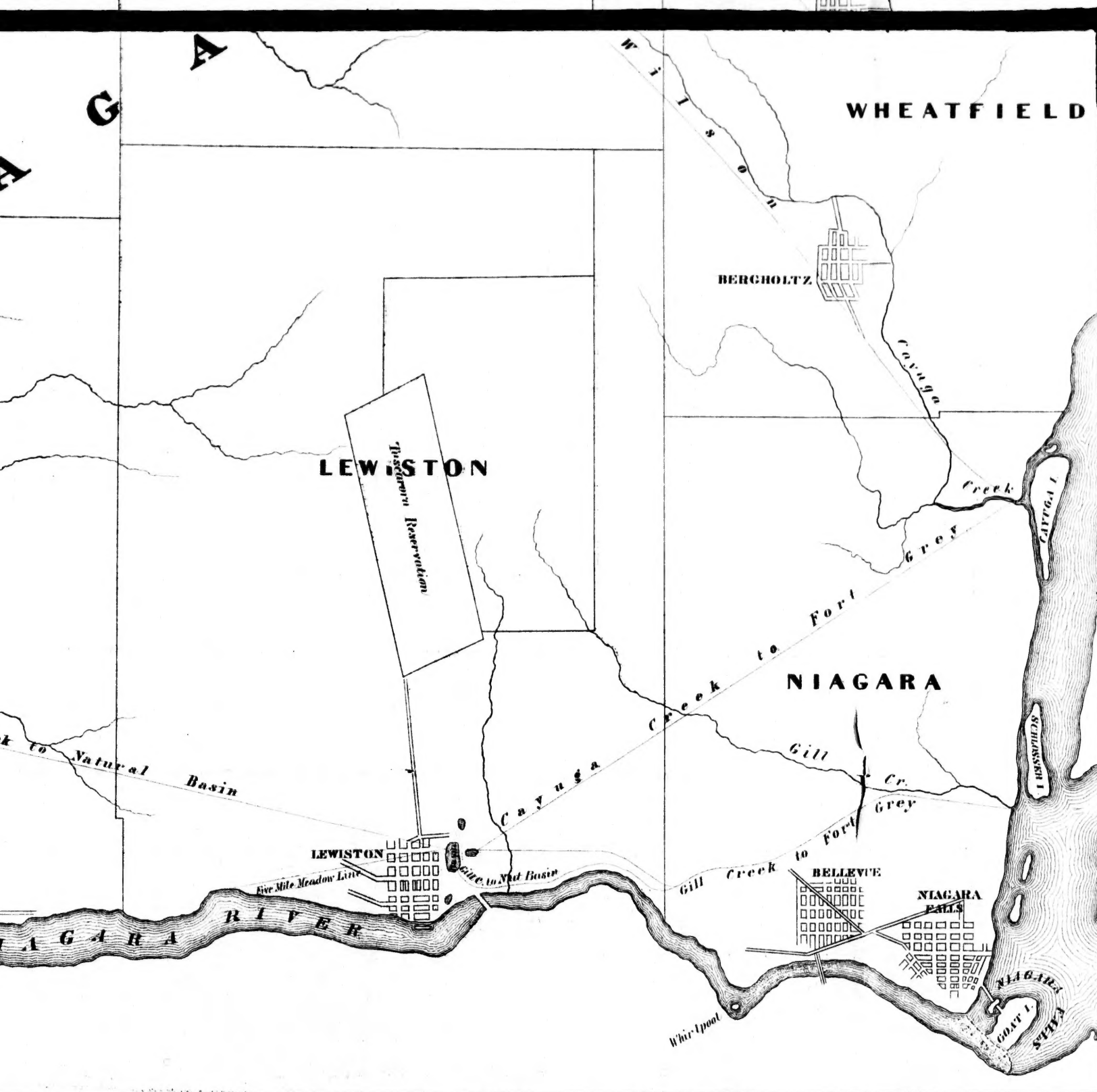
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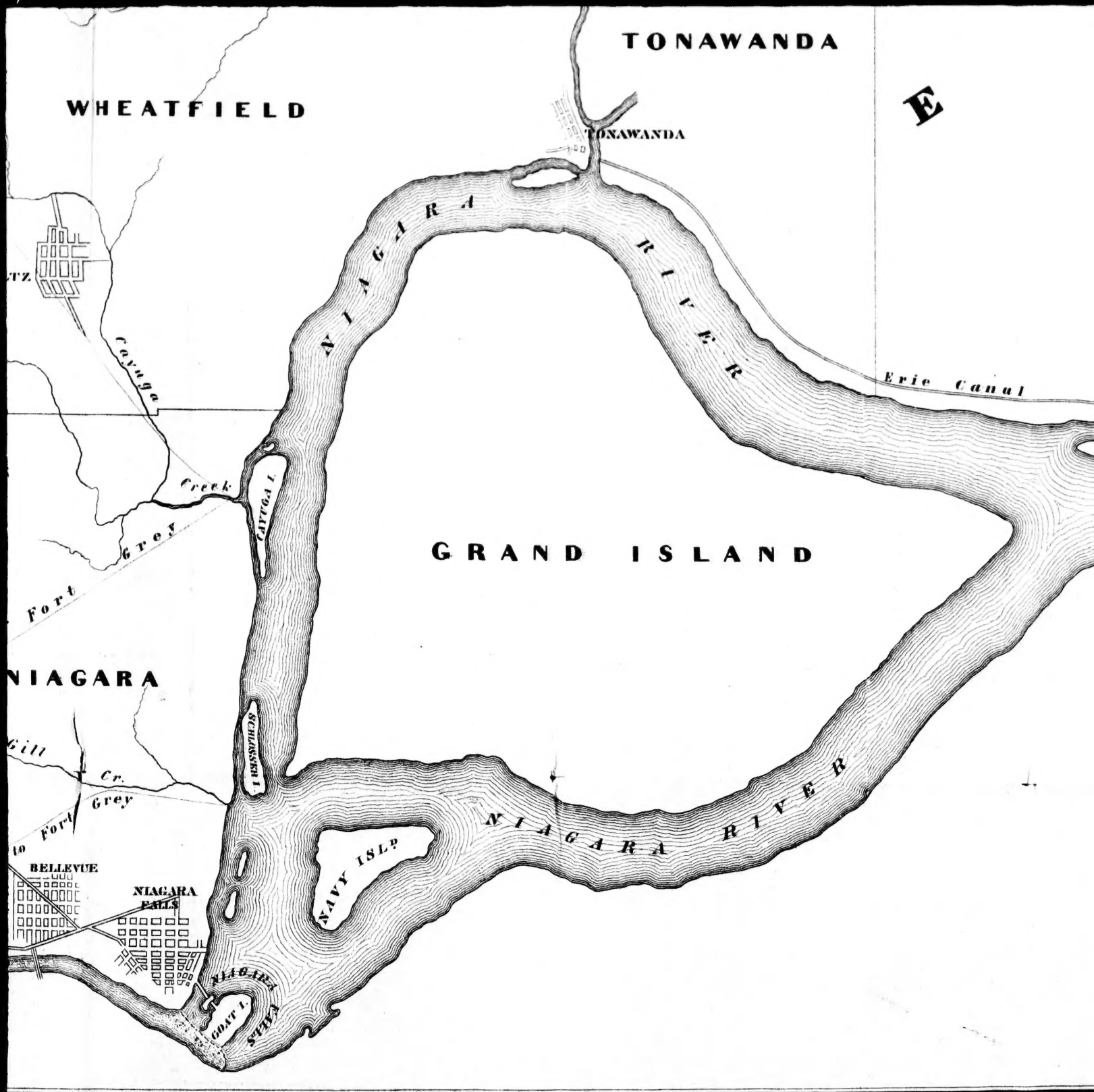
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NIAGARA COUNTY
OF NEW YORK
FOR THE
SHIP CANAL

Scale to an Inch.



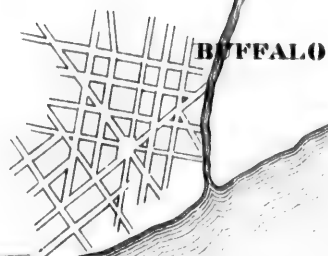






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e Canal

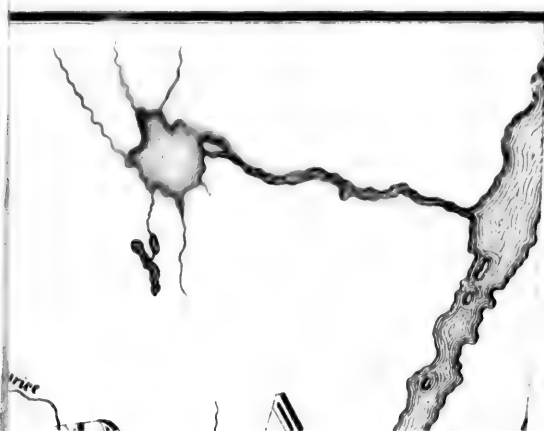


BUFFALO

L A K E

E R I E

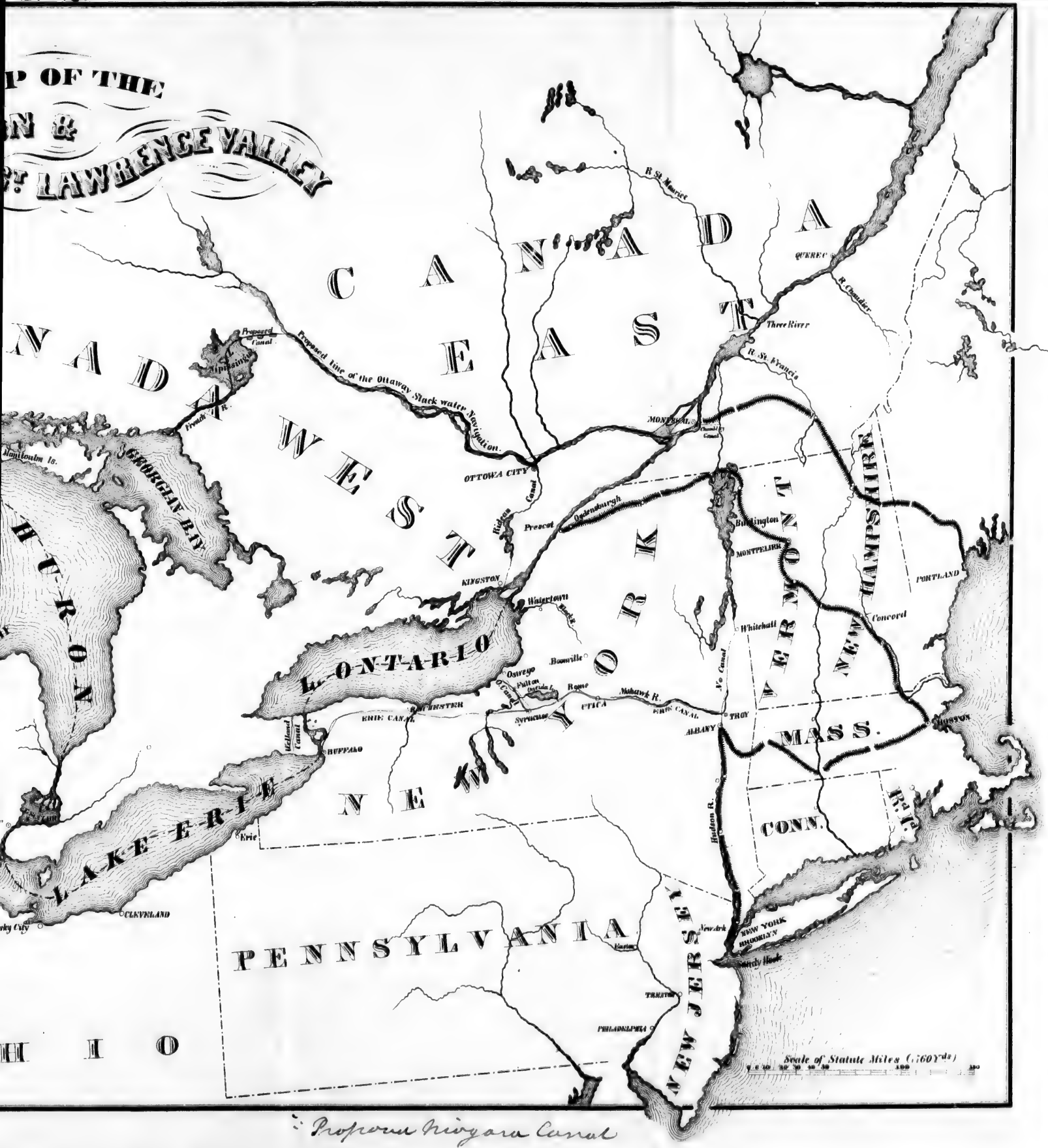




MAP OF THE
LAKE REGION &
ST. LAWRENCE



P OF THE N & ST LAWRENCE VALLEY



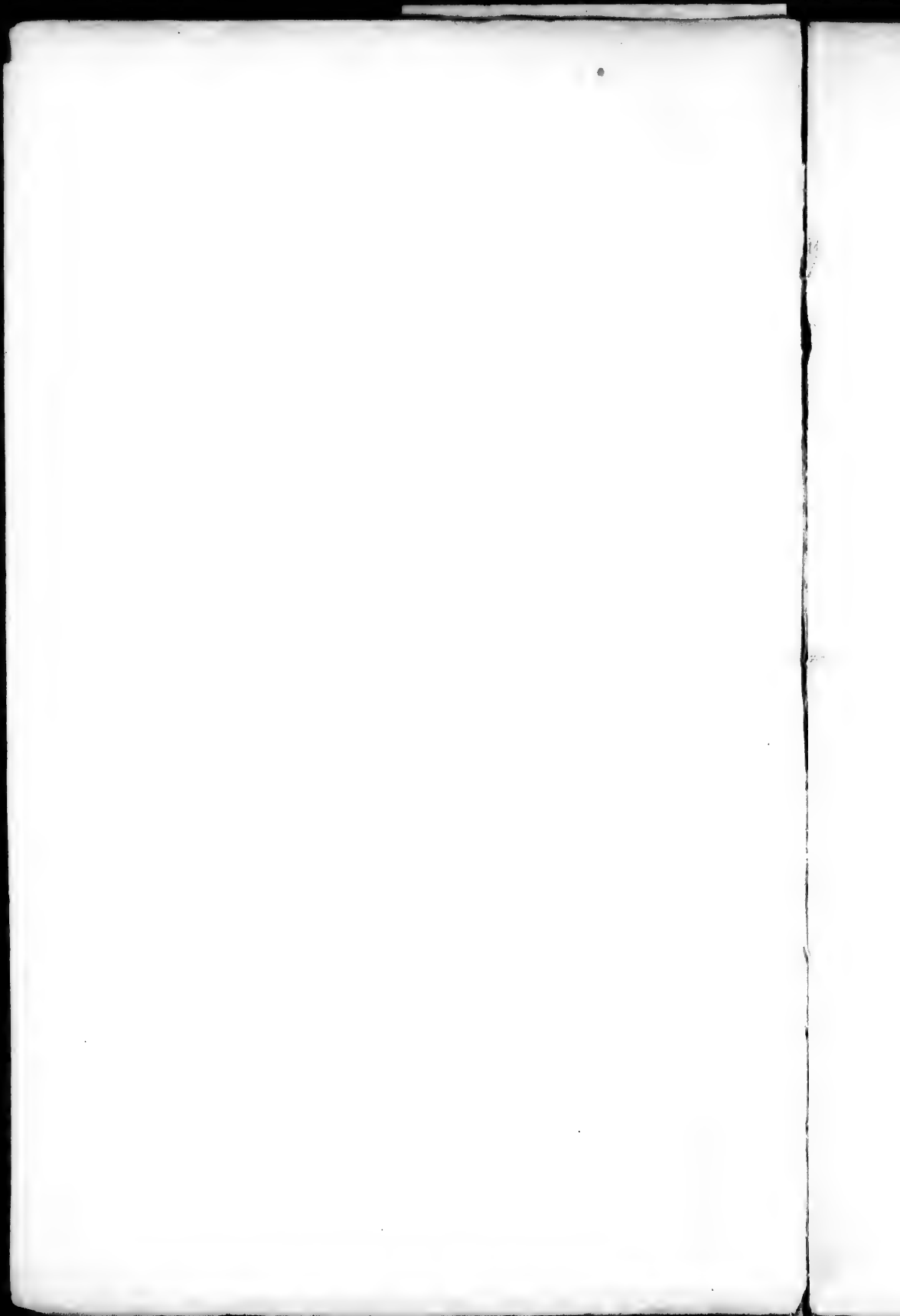
Proposed Niagara Canal

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THE
IAGARA SHIP CANAL:
ITS
MILITARY AND COMMERCIAL
NECESSITY.

NEW YORK,
1863.



NIAGARA SHIP CANAL,

ITS MILITARY AND COMMERCIAL NECESSITY.

1ST.—ITS MILITARY NECESSITY.

This great enterprise has claimed the attention of the General Government for many years, and numerous Committees of Congress have recommended it as a work truly National in its character, and demanded by the highest considerations of public interest.

Many surveys have been made of the work, all showing its entire feasibility. Among the most elaborate and reliable of these surveys, is that made under the direction of the General Government, in 1836, by the late Captain Wm. G. Williams, of the United States Engineer Corps, an officer of distinguished ability and high professional attainments. His Report, with survey and estimates, is contained in Document No. 214 H. R. 24th Cong. 1st Sess. It strongly recommends the construction of the work as "a measure of military defence, and great commercial importance." The estimated cost of the Canal, one hundred and fifty feet wide at the surface, with locks two hundred feet long and fifty feet wide, to pass vessels drawing ten feet, varies from three and a half to five and a half millions of dollars, according to the line adopted, the shortest line being less than eight miles. The annexed Map, No. 1, exhibits the several proposed routes.

The advance in the price of labor, since the report was made, will, of course, increase somewhat the cost of the work; but the estimates of Captain Williams are conclu-

sive, that it can be constructed at a moderate cost, compared with the great benefits it would secure to the country.

Local jealousies, and vague and extravagant ideas as to the expenditure required to complete this Canal, with an overweening confidence that the peaceful relations so long existing between our Government and that of Great Britain, were not likely to be disturbed, have all conspired to delay it, till at length its military and commercial necessity have become palpable and imminent.

The Government of the United States has rested supinely for near half a century under the disabilities for the defence of the Lake Frontier, imposed by the treaty of 1817 with England, by which the naval force of each Government, on the Lakes, was restricted to one vessel, of not over one hundred tons, carrying a single gun, for Lake Ontario, and not to exceed two vessels of like size and armament for all the Upper Lakes. But the British Government has been pursuing, steadily and effectively, a policy looking to the command of the Lakes, by a sufficient naval force, whenever she chooses to assert it.

Since the treaty of 1817, she has constructed the Rideau Canal, avowedly a military work, connecting Montreal with Kingston, on Lake Ontario, by an interior route, with locks one hundred and thirty-three feet long and thirty-three feet wide, well calculated to pass large gun-boats in ballast; and the St. Lawrence Canals, connecting the same points, with locks two hundred feet long and forty-five feet wide, to pass gun-boats drawing nine feet. She has also constructed the Welland Canal, connecting Lake Ontario with the Upper Lakes, with locks one hundred and forty-five feet long and twenty-six feet wide, to pass gun-boats drawing ten feet.

These Canals have cost little less than twenty millions of dollars, and still another Ship Canal is projected by the Canadian Government, between the city of Montreal and the Georgian Bay, on Lake Huron. By this route, Lake Michigan and Lake Superior, with their vast tonnage

of agricultural and mineral freight, will be brought 365 miles nearer to the city of Montreal, than they now are by the Lake and Erie canal to tide water on the Hudson.

Through her Canals, already constructed, the British Government can pass gun-boats, of the most efficient size now in use, from Montreal to Kingston in twenty-four hours, and to Lake Erie in less than forty-eight hours. She has, moreover, established and maintains, in connection with these Canals, large naval depots at Kingston, on Lake Ontario; at Malden, on Lake Erie, and at Penatanguishene, on the Georgian Bay; thus keeping in constant preparation for efficient naval operations on all the great Lakes. She is, in fact, about as well prepared for offensive war on the Lakes as she could have been if the treaty of 1817 had limited the naval force of the United States, as it now does, and left the British Government at liberty to build and fit out vessels of war as she pleased in all her Lake ports.

When, in 1861, in consequence of the seizure of the rebel leaders, Mason and Slidell, on the British steamer Trent, war between the two nations seemed almost inevitable, it was claimed extensively in the British press, that a large force of gun-boats was in readiness at Montreal to pounce upon our unprotected Lake Frontier and its immense commercial marine, at the very commencement of hostilities. The exposed condition of the Frontier seemed to be appreciated by our own Government, which notified the Governors of States, bordering on the Lakes, to be prepared to meet the threatened danger.

It is now a matter of little moment, whether these armed vessels were really at Montreal, in readiness for the expected onslaught, or not. The fact that they can be thus concentrated by the English Government on our border, and suddenly thrown upon our undefended Frontier, is patent to all, and demands the immediate action of our Government in the adoption of measures which will give reasonable security to the great national interests thus exposed and undefended.

The St. Lawrence and Lake Frontier, extending from a point opposite Cornwall, on the St. Lawrence, in the forty-fifth degree of latitude, westward through the Lakes and connecting Rivers, to Isle Royal, on the western coast of Lake Superior, includes a shore line within our territory of more than three thousand miles, and forms a navigable water boundary for eight of the most important States of the Union, with an aggregate population, in 1860, of over nine millions. Directly upon this coast, and conveniently accessible for attacks from the water, there are congregated, in cities, towns and villages, a population of near a million of our citizens, surrounded by all the material wealth incident to a high state of agricultural, manufacturing and commercial prosperity.

From these cities, and through these Lakes and Rivers, more than one hundred millions of bushels of grain, including wheat manufactured into flour, and other agricultural products in proportion, are already distributed annually to New York, New England and the Atlantic cities North of and including Baltimore, for the consumption of those States and for exportation to foreign countries.

This vast agricultural production, yet literally in its infancy, is carried forward on the Lakes by more than sixteen hundred steam and sail vessels, measuring, in the aggregate, full five hundred thousand tons, which return westward freighted with foreign and domestic merchandise. The annual value of this trade exceeds four hundred millions of dollars.

While the Westward-bound commerce is highly important to the comfort and convenience of our Western fellow-citizens, their agricultural products are indispensable to the East. The arrest of this commerce, even for a brief period, would create a state of suffering and destitution to the inhabitants of New York and New England unparalleled in the history of our country. And yet, as it were, right under the guns of a foreign nation, jealous of our commercial prosperity and increasing national power, and constantly assuming a threatening attitude to-

wards us, on the slightest pretences, these great municipal and commercial interests are utterly unprotected. We have not a fortification on the Frontier that a modern iron-clad gun-boat cannot pass with impunity ; nor a city on the Lakes that their shells could not speedily lay in ashes. Our Government has not sufficient naval stores, on all the Lakes, to fit out a single efficient vessel of war, and only a single vessel in commission of less than a hundred tons, carrying a single gun, on all the Upper Lakes, and none on Lake Ontario and the St. Lawrence. As the British Government constantly stands prepared for aggressive war on the Lakes, the treaty limiting her naval power, except on the six months' notice, is no protection to us.— War between nations ends their treaties ; and the first beligerent act may be the violation of a treaty stipulation.

The question naturally presents itself, how are these great Frontier interests to be placed in a condition of greater security ? They are National in extent and general character, and have a right to demand the protection of the General Government, whose Constitutional duty it is "to provide for the general safety and welfare."

The proposed Ship Canal is the only link wanting to give free communication through and between all the great Lakes and the River St. Lawrence, for vessels of the largest size navigating the Lakes.

On the Upper Lakes, the commercial marine is almost exclusively American ; on Lake Ontario and the St. Lawrence, the preponderance is largely in favor of Canadian bottoms. By the establishment of Naval Depots on Lake Ontario and the Upper Lakes, at several points least exposed to attacks from the Lakes, the vessels engaged in commerce, among which are a large number of propellers of the very first class, could be speedily converted into vessels of war, which a Ship Canal around the Falls, under American control, could pass between the Upper Lakes and Lake Ontario and the St. Lawrence, as the exigencies of the case might require ; thus using the natural excess, in time of peace, of American tonnage on the

Upper Lakes not only for the defence of those Lakes, but also for the defence of Lake Ontario and the St. Lawrence in time of war.

The importance of this communication between the Lakes to the Nation, in case of war, cannot well be overestimated. The facility it would give for the concentration and ready combination of our naval and military forces, and the transportation of military stores through all the Lakes might, of itself, decide the war in our favor. The want of such a communication between the Lakes, during our last war with England, was a serious obstacle to the success of our arms, and to the proper protection of the Frontier.

Especially is it demanded, from the fact that all these facilities are possessed by the English Government, within her own territory, for the transfer and concentration of fleets, armies and munitions of war on all the Lakes. Her Canadian Canals have been constructed, if not for the express purpose, at least so as to be amply equal to all her demands and necessities in case of war with the United States. *She* is prepared fully for such an exigency, while our defenceless position almost seems to invite aggression.

Under no other civilized government on earth, are such vast public and private interests suffered to remain thus exposed to destruction—thus entirely at the mercy of an unfriendly power. Justice to the inhabitants of this frontier, and the interests of the country at large, demand that the general government should at once establish the necessary Naval Depots on the Lakes, and cause the Niagara Ship Canal to be constructed, as measures of urgent military necessity.

But important as this measure of protection would be, in and of itself, its usefulness would be incalculably increased by the proposed enlargement of the locks of the Oswego canal and Erie Canal east of Syracuse, to pass gunboats from the Hudson River to Lake Ontario. This would be the shortest Canal route for vessels of war between

our tide water and the Lakes, and by far the cheapest in construction.

When efficient vessels of war can be passed from the Hudson to Lake Ontario, and thence through all the Lakes by the Niagara Ship Canal, the interests of the Lake and St. Lawrence Frontier will have little to apprehend from foreign aggression.

2.—THE COMMERCIAL NECESSITY OF THE CANAL.

Urgent as is the necessity of this great work from military considerations, its construction as a channel of trade between the North-Western and Eastern States, including New York, is of little less importance.

In the year 1862, at least thirty millions of bushels of grain, including wheat manufactured into flour, to say nothing of other agricultural products of Western States, passed from the Upper Lakes to Lake Ontario through the Welland Canal, and over Canadian Railroads, stretching from Lake Ontario to the Upper Lakes. More than three-fourths of this grain found its way from Lake Ontario and the St. Lawrence, through American channels, to New York and New England; near twenty millions of it was shipped Eastward from Oswego and Cape Vincent, and some five millions of bushels from Ogdensburgh over the Northern Railroad. The return trade from the East to the West, through these channels, for the same year, was correspondingly large.

This commerce is annually increasing in magnitude, and becoming more and more necessary to the development and prosperity of the great divisions of the Union between which it is conducted. The vessels bearing this trade on the Lakes are entirely American; and yet, American as this trade is in its inception and destination, it is all under the direct control and at the mercy of a foreign, and that not a friendly Government. The permanency of the trade is continually threatened by the misunderstandings so often arising between that Government and our own. Already have the Canadian authori-

ties so regulated their Canal tolls as to discriminate in favor of vessels and cargoes going to Montreal, for the purpose of diverting the trade from American to Canadian channels; and the same power can, at any time, adopt measures fatal to this commerce, as far as American interests are involved.

The proposed Ship Canal would relieve this trade from these constantly impending dangers; and it is clearly the duty of the General Government to give to so great an interest of her citizens, this measure of protection.

But if these dangers from abroad did not exist, there are other considerations imperatively demanding the construction of this great work.

The existing channels of transportation between the Lakes and tide water are not large enough to meet the present demands of the trade. A committee of the New York Legislature reported, in April last, "that during a considerable portion of the last three years, the enlarged Canals have been taxed to their utmost capacity, not from deficiency in its main trunk, but from the impossibility of passing more boats through the locks; and it is notorious, that the Railroads, connecting the East with the West, except for a brief period in summer, cannot carry forward the freight offering for transportation to the sea-board.

The annual increase of agricultural products of the States tributary to these Railroads and Canals, for the last five years, has not been less than twenty per cent.; and all the elements of this wonderful development of agricultural production, promise to continue in operation for many years to come. Not a tenth part of the land is yet occupied. Foreign and domestic emigration is bringing it rapidly under cultivation, and Railroads are being extended in all directions for the transportation of their increasing products to the Western Lake cities. Without new and larger channels for these products to our markets, their production must be checked by the onerous rates of transportation always charged on over-burdened channels of trade. The inevitable result must be a limitation of this

production, or the opening of new channels for its accommodation.

So great is the necessity felt at the West for more and larger outlets to the Atlantic for their rapidly increasing agricultural products, that the Illinois and Wisconsin Legislatures, last winter, appointed a deputation of her most intelligent and influential citizens to visit the Canadian authorities, and urge upon them the enlargement of the Welland Canal, and the early construction of the proposed canal between the Georgian Bay and Montreal. This project contemplates a slack-water navigation for the largest vessels navigating the Lakes through the Ottawa and French Rivers, and will bring the Straits of Mackinaw, and consequently the city of Chicago, nearer to Montreal than they now are, by the water route, to the city of Buffalo. The annexed Map, No. 2, exhibits the line of this proposed work, according to the survey of Walter Shanley, Esq., made by order of the Canadian Board of Public Works. It commences at the mouth of the French River on the Georgian Bay, 200 miles east of Mackinaw, and thence up that river, and through Lake Nipissing and its tributary, the River De Voce, and thence by a cut of less than one mile to the waters of the Ottawa, and down that river to Montreal; a distance in all from the mouth of the French river of 430 miles, and from Chicago to Montreal of 980 miles.

The distance from Chicago to Buffalo, by the Lakes, is variously estimated at from 950 to 1050 miles. We assume the distance to be 1000 miles, which cannot be far from the truth. This would bring the city of Chicago, by the Ottawa route, 20 miles nearer to Montreal than she is by the Lakes to Buffalo; and 515 miles nearer to Montreal than she is, by the Lakes, the Erie Canal and the Hudson River, to the city of New York.

Of the 430 miles between the mouth of French River and Montreal, only 58 miles will be canal, divided into sections varying from one to eight miles in length—the remaining 372 miles being inland Lake, and slack-water River navi-

gation, admirably adapted to the use of steam vessels, and to the towing of freight barges by steam.

With this Canal constructed, we shall require the cheapest possible communication between the Lakes and our Atlantic cities, to maintain the ascendancy we now hold in this great internal trade.

The Niagara Ship Canal, and the proposed further enlargement of the locks of the Oswego and Erie Canals, would not only relieve the Western trade from existing embarrassments, but provide amply for its demands for greater capacity of transportation; and at the same time secure a lower cost of transportation between the Lakes and tide-water, than by any other route.

Let us examine this point briefly:

The most reliable data we have, shewing the actual cost of transportation by different modes of conveyance, are those furnished by the Hon. W. J. McAlpine, late State Engineer of the State of New York, in his Report to the Legislature, on Railroads, in 1855.

From this data Mr. McAlpine deduced the following results:

The cost of transportation per ton, per mile is—	Mills.
On the Ocean, long voyage,.....	1½
“ “ “ short voyage,.....	2½ to 6
“ “ Lakes, long “	2
“ “ “ short “	3 to 4
“ “ Hudson River,.....	2½
“ “ Mississippi and St. Lawrence,.....	3
“ “ Erie Canal, (enlarged),.....	4
“ “ Ordinary Canals,.....	5
“ “ Railroads, (ordinary grades),.....	12½ to 13½

Now, the distance by the Lake from Chicago to Buffalo, is one thousand miles; and the actual cost of transporting a ton of freight, according to the estimate of Mr. McAlpine, is two mills per ton per mile, or—

For a ton of freight from Chicago to Buffalo,.....	\$2 00
The distance from Buffalo to Troy, is 345 miles, which, at four mills per ton per mile, makes the cost of transporting a ton from Buffalo to Troy,.....	1 38
Add Canal Tolls, at three mills per 1,000 lbs. per mile,.....	2 07
Cost of transportation per ton, on the Hudson, at two and a half mills per mile,.....	37½

Making the whole cost, including Canal tolls, of transporting a ton of wheat or flour from Chicago to New York, via Buffalo and the Erie Canal,..... } \$5 82½

Cost via the Niagara Ship Canal and Lake Ontario:—

The distance from Chicago to Oswego, via the proposed Ship Canal, would be eleven hundred and eighty miles, which, at two mills per ton per mile, would be,	\$2 36
The distance from Oswego to Troy, by Canal, is one hundred and eighty-seven miles, which, at four mills per ton per mile, for transportation, would be,.....	74.4
Add Canal tolls, at three mills per one thousand pounds per mile, on wheat or flour,.....	1 12.2
Freight on Hudson River at 2½ mills per ton per mile,.....	37.5
Add Niagara Ship Canal expenses, per ton,.....	20

Making the cost of transporting a ton of wheat or flour from Chicago to New York, via the proposed Ship Canal and Lake Ontario,..... } \$4 80.2

The above statement shows a difference in favor of the Niagara Ship Canal route of \$1 02 on a ton of wheat or flour from Chicago to New York.

In arriving at this result, the same rate of freight is charged on the comparatively short Lake voyage from Chicago to Buffalo, as is charged on the longer Lake voyage from Chicago to Oswego, when, on the principle of Mr. McAlpine's data, it should be from a quarter of a mill to half a mill per ton per mile higher. Then, again, the time required is assumed to be the same on the two routes; when by propellers, or other steam vessels, there would be at least two and a half days saved in time by the Niagara Canal route.

But the prices of transportation between the Western States and tide water would not only be reduced by the greater cheapness of the Ship Canal route, as above

shown, but also by the competition, which a new channel for any trade, always creates and sustains ; and hence, the benefits of lower rates of transportation would not be confined to the property passing through this new channel, but all other channels between the East and West would be compelled to reduce their prices on through-freight, so as to conform, or nearly so, to the prices charged by the cheaper channels. What the aggregate saving would be annually to the Western States, it is difficult to estimate with accuracy ; but that it would be numbered by millions of dollars, is beyond a doubt.

The two prominent objections urged in opposition to this Canal are—First, that the trade of the Upper Lakes if let down to Lake Ontario, will pass on to Montreal, and thus be diverted from our own Atlantic cities. And secondly, that if it was not so diverted to Montreal, but passed on from Lake Ontario to the Hudson, through the Oswego and Erie Canals, and over the Northern Railroad from Ogdensburgh to the States of Maine, Vermont, New Hampshire and Massachusetts, it would deprive the State of New York of a large amount of tolls, which she would realize if the trade were forced through the whole length of the Erie Canal.

The answer to the first objection is, that a large trade from the Upper Lakes, through Lake Ontario, has been going on for many years, and that more than three-fourths of it has passed on, through American channels, from Oswego, Cape Vincent and Ogdensburgh to the sea-board, or for consumption in the interior of the New England States and the State of New York.

There is no good reason why the course of this trade should differ, in the future, from what it has been in the past, unless influenced by Canadian legislation, against which the Niagara Ship Canal would fully protect it. It is evident that the nearer the large Lake vessel can approach tide water on the Hudson, the more surely will our Atlantic cities control the trade as against Canadian competition.

As to the second objection, the loss of tolls to the State of New York, the apprehension is not well-founded ; and if it was, it would not be a valid objection to the construction of the Ship Canal.

No State can expect to stand in a great highway of the nation and levy tolls upon the products of her sister States, beyond the amount necessary to defray the superintendence and repairs of the work she may construct for its accommodation, and the creation of a sinking fund to refund the cost of its construction within a reasonable period. For commercial objects, channels of trade are bonds of union between States and Nations. When their main object is the accumulation of revenue beyond the limits above prescribed, they become subjects of discord and strife.—The Canals of New York between the Lakes and tide-water, as heretofore stated, are filled to overflowing, and the business seeking them constantly increasing ; and no reasonable doubt can exist that the State will always obtain all the tolls she can justly levy upon the productions and consumption of the Western States.

The best interests of the country demand the cheapest possible transportation between the interior and the Atlantic coast. This would be obtained between the Lake country and tide water by the Niagara Ship Canal. It would relieve us from all apprehension of the diversion of any considerable portion of this trade from our own commercial cities. It would create a new bond of union between the East and West, and forever secure the military and commercial ascendancy on the great Lakes, to the Government and citizens of the United States.